

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/707,415	CHEN, KEN-CHI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Laura A Grier	2644	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_\_.
2. ☒ The allowed claim(s) is/are 1-4,8-12 and 16-18.
3. ☒ The drawings filed on 12 December 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

**DETAILED ACTION**

**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

**Attorney Authorization**

Authorization for this examiner's amendment was given in a telephone interview with Scott Margo on February 17, 2005.

**Amended Changes**

The application has been amended as follows:

- a) Claims 5-7 have been deleted.
- b) Claims 13-15 have been deleted.

***Allowable Subject Matter***

Claims 1-4, 8-12, and 16-18 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claim 1, the prior art of record, Iwase et al. (herein, Iwase) discloses an apparatus which generates a 1<sup>st</sup> and 2<sup>nd</sup> output stereo channel signal, means for creating a mono

signal and high pass filters (1<sup>st</sup> and 2<sup>nd</sup>) for high pass signals. However, Iwase fails to specifically disclose generating a mono according to the sum of the 1<sup>st</sup> and 2<sup>nd</sup> stereo signal; generating a 1<sup>st</sup> intermediate signal according to the difference between the 1<sup>st</sup> stereo signal and the mono signal; generating a 2<sup>nd</sup> intermediate signal according to the difference between the 2<sup>nd</sup> stereo signal and the mono signal, and mixing the 1<sup>st</sup> and 2<sup>nd</sup> intermediate signals with the respective 1<sup>st</sup> and 2<sup>nd</sup> highpass signals, therein.

Regarding claim 9, the applicant's admitted prior art (herein, AAPA) discloses a sound source circuit, a signal module, and mono processing module, high pass filters, and a vocal cancellation module; and the prior art of record, Iwase discloses an apparatus which generates a 1<sup>st</sup> and 2<sup>nd</sup> output stereo channel signal, means for creating a mono signal and high pass filters (1<sup>st</sup> and 2<sup>nd</sup>) for high pass signals. However, prior art fails to specifically disclose generating a mono according to the sum of the 1<sup>st</sup> and 2<sup>nd</sup> stereo signal; a 1<sup>st</sup> and 2<sup>nd</sup> vocal cancellation module for generating a 1<sup>st</sup> intermediate signal according to the difference between the 1<sup>st</sup> stereo signal and the mono signal and generating a 2<sup>nd</sup> intermediate signal according to the difference between the 2<sup>nd</sup> stereo signal and the mono signal, and mixing the 1<sup>st</sup> and 2<sup>nd</sup> intermediate signals with the respective 1<sup>st</sup> and 2<sup>nd</sup> highpass signals, therein.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A Grier whose telephone number is (703) 306-4819. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh N Tran can be reached on (703) 305-4040. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Laura A. Grier  
February 17, 2005